

Amendment

49. (New) An optical device comprising:

at least three of an image pickup device, a display element, a view finder, an optical surface which is rotationally asymmetrical, a diffractive optical element, a microprocessor, a memory, a telephone function and a vari-focal function; and an optical element which has a variable optical characteristic.

50. (New) An optical device comprising:

at least three of an image pickup device, a display element, a view finder, an optical surface which is rotationally asymmetrical, a diffractive optical element, a microprocessor, a memory, a telephone function and vari-focal function; and a reflection type optical element which has a variable optical characteristic.

51. (New) An optical device comprising:

at least three of an image pickup device, a display element, a view finder, an optical surface which is rotationally asymmetrical, a diffractive optical element, a microprocessor, a memory, a telephone function and vari-focal function; and a reflection type optical element which has a rotationally asymmetrical optical surface and a variable optical characteristic.

52. (New) An optical device comprising:

at least three of an image pickup device, a display element, a view finder, an optical surface which is rotationally asymmetrical, a diffractive optical element, a microprocessor, a memory, a telephone function and vari-focal function; and a reflection type optical element having an optical surface for oblique incidence and a variable optical characteristic.

53. (New) An optical device comprising:

at least three of an image pickup device, a display element, a view finder, an optical surface which is rotationally asymmetrical, a diffractive optical element, a microprocessor, a memory, a telephone function and vari-focal function; and
an optical element having a variable optical characteristic; and
an optical system having a bent optical axis.

54. (New) The optical device according to claim 49, 50, 51, 52 or 53,

wherein at least one of said image pickup device, said display element, said view finder, said optical surface which is rotationally asymmetrical, said diffractive optical element, said microprocessor, ~~said memory~~ and said optical element having a variable optical characteristic is manufactured by ~~lithography~~.

55. (New) The optical device according to claim 49, 50, 51, 52 or 53,

wherein at least one of said image pickup device, said optical surface, said diffractive optical element, and said optical element having a variable optical characteristic has a function of an infrared cut filter.

56. (New) The optical device according to claim 49, 50, 51, 52 or 53,

wherein said optical device comprises an infrared cut filter.

57. (New) The optical device according to claim 49, 50, 51, 52 or 53, comprising:

an optical element or an optical member which is manufactured by molding a plastic, glass or the like material.

58. (New) The optical device according to claim 49, 50, 51, 52, or 53,

wherein said optical surface which is rotationally asymmetrical is a free shaped surface.

59. (New) The optical device according to claim 54.

wherein at least one of said image pickup device, said optical surface, said diffractive optical element, and said optical element having a variable optical characteristic has a function of an infrared cut filter.

60. (New) The optical device according to claim 54,

wherein said optical device comprises an infrared cut filter.

61. (New) The optical device according to claim 54, comprising:

an optical element or an optical member which is manufactured by molding a plastic, glass or the like material.

62. (New) The optical device according to claim 54,

wherein said optical surface which is rotationally asymmetrical is a free shaped surface.

63. (New) An optical device comprising:

at least two of an image pickup device, a display element, a view finder, an optical surface which is rotationally asymmetrical, a diffractive optical element, a microprocessor, a memory, a telephone function and a vari-focal function, at least two of which are disposed on an identical substrate; and

an optical element having a variable optical characteristic.

64. (New) The optical device according to claim 58,

wherein at least one of the image pickup device, the display element, the view finder, the optical surface which is rotationally asymmetrical, the diffractive optical element, the microprocessor, the memory and the vari-focal function are manufactured by lithography.

65. (New) The optical device according to claim 63.

wherein at least one of the image pickup device, the display element, the view finder, the optical surface which is rotationally asymmetrical, the diffractive optical element, the microprocessor, the memory and the vari-focal function are manufactured by lithography.

66. (New) The optical device according to claim 58.

wherein at least one of the image pickup device, the optical surface which is rotationally asymmetrical, the diffractive optical element and the optical element having a variable optical characteristic has a ~~function~~ of an infrared cut filter.

67. (New) The optical device according to claim 63.

wherein at least one of the image pickup device, the optical surface which is rotationally asymmetrical, the diffractive optical element and the optical element having a variable optical characteristic has a function of an infrared cut filter.

68. (New) The optical device according to claim 58.

wherein said optical device comprises an infrared cut filter.

69. (New) The optical device according to claim 63.

wherein said optical device comprises an infrared cut filter.

70. (New) An optical device comprising:

at least one of an image pickup device, a display element, a view finder, an optical surface which is rotationally asymmetrical, a diffractive optical element, a microprocessor, a memory, a telephone function and a vari-focal function, at least one of which is disposed on a transparent substrate; and

an optical element having a variable optical characteristic.